#### UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

PATENT NO.

: 7,026,484 B2

Page 1 of

APPLICATION NO.: 10/080926 DATED

: April 11, 2006

INVENTOR(S)

: Lin Zhi et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### IN THE TITLE PAGES:

Item [56] References Cited, in OTHER PUBLICATIONS:

in Yudin, please replace "Geterotsikicheskikh" with --Geterotsiklicheskikh-in the first Yamashkin et al., please replace "Chemistry.of" with -- Chemistry ofin Edwards, J., et al., please replace "(1999)" with --(1998)--

in Boyer, M., please replace

"http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm(accessed on Jan. 28, 2005." with --http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm (accessed on Jan. 28, 2005) .--

in Castillo, P., please replace "o-dihdroxyaromatic" with --o-dihydroxyaromatic--

This certificate supersedes certificate of correction

October 31,2006.

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 BZ

Page 2 of 26

**(II)** 

DATED INVENTOR(S)

: APRIL 11, 2006 : LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### IN THE SPECIFICATION:

In column 2, beginning at line 7, please replace formulas I-VIII with:

(III)

OR

$$R^{10}$$
  $R^{8}$   $R^{8}$   $R^{8}$   $R^{8}$   $R^{8}$   $R^{9}$   $R^{10}$   $R^{10}$ 

MAILING ADDRESS OF SENDER:

PATENT No. 7,026,484

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 BZ

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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Note

# United States Patent and Trademark Office CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 62

Page 4 of 26

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

in column 7, beginning at line 15, please replace formulas I-VIII with:

$$R^4$$
 $R^8$ 
 $R^7$ 
 $R^8$ 
 $R^8$ 
 $R^7$ 
 $R^8$ 
 $R^9$ 
 $R^{10}$ 
 $R^9$ 

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT No.

: 7,026,484 62

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 62

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

in column 24, lines 53-67, please replace the structures in Scheme II with:

$$\begin{array}{c|c}
 & NaNO_2 \\
\hline
 & R_1 \\
\hline
 & NHN_2H \\
\hline
 & R_2 \\
\hline
 & 10 \\
\hline
 & HC1
\end{array}$$

in column 57, lines 4-6, please replace "(Compound 177, Structure 26 of Scheme IV, where R<sub>2</sub>=methyl. R<sub>3</sub>=2-hydroxyethyl" with—(Compound 177, Structure 26 of Scheme IV, where R<sub>2</sub>=methyl, R<sub>3</sub>=2-hydroxyethyl)—

in column 70, line 21, please replace "chloronation" with -chlorination-

MAILING ADDRESS OF SENDER:

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

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Page 7 of 26

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### IN THE CLAIMS:

Please replace Claims 1, 4, 26, 28, 29, 30, 32, 33, 34, 42, 43, 50, 52, 53, and 60 with the following Claims:

#### 1. A compound of the formula:

$$R^{2}$$
 $R^{3}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{7}$ 
 $R^{8}$ 
 $R^{7}$ 
 $R^{10}$ 
 $R^{10}$ 

MAILING ADDRESS OF SENDER:

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### UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 BZ

: APRIL 11, 2006

INVENTOR(S)

DATED

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

 $R^1$  is selected from among hydrogen, F, Cl, Br, I, NO<sub>2</sub>, OR<sup>12</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, substituted C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl and C<sub>1</sub>-C<sub>8</sub> heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R<sup>2</sup> is selected from among F, Cl, Br, I, CF<sub>3</sub>, CHF<sub>2</sub>, CH<sub>2</sub>F, CF<sub>2</sub>Cl, CN, CF<sub>2</sub>OR<sup>12</sup>, CH<sub>2</sub>OR<sup>12</sup>, OR<sup>12</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, substituted C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkenyl and C<sub>2</sub>-C<sub>8</sub> alkynyl, wherein the haloalkyl, heteroalkyl,

alkenyl and alkynyl groups are optionally substituted;

R<sup>3</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>4</sup> is selected from among hydrogen, F, Cl, Br, I, OR<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkynyl, C<sub>2</sub>-C<sub>8</sub> alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R<sup>5</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally

substituted:

 $R^6$  is selected from among hydrogen, F, Cl, Br, I,  $OR^{12}$ ,  $NR^{12}R^{13}$ ,  $SR^{12}$ ,  $SOR^{12}$ ,  $SO_2R^{12}$ ,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  heteroalkyl,  $C_2$ - $C_8$  alkynyl,  $C_2$ - $C_8$  alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R<sup>7</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally

substituted;

MAILING ADDRESS OF SENDER:

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 62

DATED

: APRIL 11, 2008

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

 $R^8$  is selected from among hydrogen, F, Cl, Br, I,  $OR^{12}$ ,  $NR^{12}R^{13}$ ,  $SR^{12}$ ,  $SOR^{12}$ ,  $SO_2R^{12}$ ,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  heteroalkyl,  $C_2$ - $C_8$  alkynyl,  $C_2$ - $C_8$  alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R<sup>3</sup> and R<sup>5</sup> taken together form a bond; or

R<sup>5</sup> and R<sup>7</sup> taken together form a bond; or

R<sup>4</sup> and R<sup>6</sup> taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a three- to eight-membered saturated or unsaturated

carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R<sup>9</sup> and R<sup>10</sup> each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, C<sub>m</sub>(R<sup>12</sup>)<sub>2m</sub>OR<sup>13</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>13</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R<sup>11</sup> is selected from among F, Br, Cl, I, CN, OR<sup>14</sup>, NR<sup>14</sup>R<sup>13</sup>, and SR<sup>14</sup>:

 $R^{12}$  and  $R^{13}$  each independently is selected from the group of hydrogen,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  heteroalkyl,  $C_2$ - $C_8$  alkenyl,  $C_2$ - $C_8$  alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R<sup>14</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, aryl, heteroaryl, C(O)R<sup>15</sup>, CO<sub>2</sub>R<sup>15</sup> and C(O)NR<sup>15</sup>R<sup>16</sup>, wherein the alkyl,

haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R<sup>15</sup> and R<sup>16</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7.026,484 B2.

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```
W is O or S;

X is N{R<sup>14</sup>};

Y is selected from among O, S, N{R<sup>12</sup>} and NO{R<sup>12</sup>};

Z is N{R<sup>12</sup>};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.
```

- 4. A compound according to claim 1, wherein  $R^2$  is selected from among F, Cl, Br, CF<sub>3</sub>, CF<sub>2</sub>Cl, CF<sub>2</sub>H, CFH<sub>2</sub>, substituted C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> heteroalkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl and C<sub>2</sub>-C<sub>4</sub> alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.
- 26. A compound according to claim 1, wherein:

R<sup>6</sup> and R<sup>8</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroaryl and aryl groups are optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a three to eight membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

28. A compound according to claim 1, wherein:

R<sup>1</sup> is selected from among hydrogen, F, Cl, Br, I, substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

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#### **UNITED STATES PATENT AND TRADEMARK OFFICE** CERTIFICATE OF CORRECTION

Note

PATENT NO.

: 7,026,484 BZ

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R2 is selected from among F, Cl, Br, CF3, CF2Cl, CF2H, CFH2, substituted C1-C6 alkyl, C1-C6 haloalkyl and C1-C6 heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

R<sup>3</sup> and R<sup>4</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C1-C6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are

optionally substituted.

29. A compound according to claim 28, wherein:

R5 through R8 each independently is selected from among hydrogen, C1-C6 alkyl, C1-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a four to six membered saturated or unsaturated

carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

30. A compound according to claim 29, wherein:

R<sup>9</sup> and R<sup>10</sup> each independently is selected from among hydrogen, F, Cl, Br, C<sub>1</sub>-C<sub>6</sub> alkyl, C1-C6 haloalkyl and C1-C6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>12</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, C2-C6 alkenyl, C2-C6 alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted: and

R<sup>14</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> heteroalkyl, C(O)R<sup>15</sup>, CO<sub>2</sub>R<sup>15</sup> and C(O)NR<sup>15</sup>R<sup>16</sup>, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

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Note

### UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7.026,484 BZ

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

32. A compound according to claim 1, wherein said compound is selected from among:

6-Methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

5-Isopropyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

5-Allyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one:

5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-trifluoroethyl-4trifluoromethylcyclopentano[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-ethyl-4trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]-quinolin-2(1H)-one;

(±)-5,6-Dihydro-5,6-cis-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]-quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(3-furanylmethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(3-thiophenemethyl)-4trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;

(±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]pyττolo[3,2-f]quinolin-2(1H)-one;

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Note

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PATENT NO.

: 7,026,484 82

DATED

: APRIL 11, 2008

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-trifluoromethylcyclo-pentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-cyclopropylmethyl-4trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,8,8a(cis)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9H-cyclo-hexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,8,9,9a(cis),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclo-heptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoro-methyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;

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Note

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (±)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
- (±)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]-quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoro-methyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-f]quinolin-2(1*H*)-one;
- (±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-f]quinolin-2(1*H*)-one;
- (±)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one:
- 6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- 6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)one;
- 5,6,7,8-Tetrahydro-8-(2,2,2-trifluoroethyl)-4trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]-quinolin-2(1H)-one;

MAILING ADDRESS OF SENDER:

PATENT No. 7,026,484

Note

### UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,028,484 82

Page 15 of 26

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- 9-Trifluoroethyl-4-trifluoromethyl-9H-benzo[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- 5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
- 5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo [3,2-f]-quinolin-2(1*H*)-one;
- 5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
- 5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
- 5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo [3,2-f]-quinolin-2(1*H*)-one;
- 5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- 5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5-Acetyloxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
- 2-Acetyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;
- 6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- 5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;

MAILING ADDRESS OF SENDER:

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Note

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 62

Page 16 of Z6

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pytrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 7-Allyl-6-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
- 6-Ethyl-7-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
- 7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-/]quinolin-2(1*H*)-one;
- 7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5H-pyrrolo[2,3-f]quinolin-2(1H)-one;
- (+)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (-)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
- 5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-f]quinolin-2(1H)-one;
- 6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one; and
- 5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one

MAILING ADDRESS OF SENDER:

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Note

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: 7,026,484 82

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: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 33. A compound according to claim 1, wherein said compound is selected from the group consisting of:
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo [3,2-f]-quinolin-2(1H)-one;
- (±)-5,6-Dihydro-5,6-cis-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]-quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclo-pentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,7a(cis),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethyl-cyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-4c,5,6,7,8,8a(cis)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9H-cyclo-hexano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-cis-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pytrolo[3,2-f]quinolin-2(1H)-one;
- (±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- (±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

MAILING ADDRESS OF SENDER:

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 BZ

Page 18 of 26

DATED

: APRIL 11, 2008

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- ( $\pm$ )-5,6-cis-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7H-pyrrolo[3,2-f]-quinolin-2(1H)-one;
- 5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- 6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- 6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
- 5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]-quinolin-2(1H)-one;
- 6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
- (+)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-f]quinolin-2(1H)-one; and
- (-)-4c,5,6,7,7a(cis),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-f]quinolin-2(1H)-one.

MAILING ADDRESS OF SENDER:

PATENT No. \_\_\_\_\_ 7,026,484

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Note

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 62

DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 34. A pharmaceutical composition, comprising:
- a pharmaceutically acceptable carrier; and
- a compound of formula:

$$R^{1}$$
 $R^{1}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{1}$ 
 $R^{10}$ 
 $R^{1}$ 
 $R^{1}$ 

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MAILING ADDRESS OF SENDER:

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Note

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PATENT NO.

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### wherein:

 $R^1$  is selected from among hydrogen, F, Cl, Br, I, NO<sub>2</sub>,  $OR^{12}$ ,  $SR^{12}$ ,  $SOR^{12}$ ,  $SO_2R^{12}$ ,  $NR^{12}R^{13}$ ,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl and  $C_1$ - $C_8$  heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R<sup>2</sup> is selected from among F, Cl, Br, I, CF<sub>3</sub>, CHF<sub>2</sub>, CH<sub>2</sub>F, CF<sub>2</sub>Cl, CN, CF<sub>2</sub>OR<sup>12</sup>, CH<sub>2</sub>OR<sup>12</sup>, OR<sup>12</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, substituted C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkenyl and C<sub>2</sub>-C<sub>8</sub> alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted:

R<sup>3</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

 $R^4$  is selected from among hydrogen, F, Cl, Br, I,  $OR^{12}$ ,  $NR^{12}R^{13}$ ,  $SR^{12}$ ,  $SOR^{12}$ ,  $SO_2R^{12}$ ,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  heteroalkyl,  $C_2$ - $C_8$  alkynyl,  $C_2$ - $C_8$  alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R<sup>5</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R<sup>6</sup> is selected from among hydrogen, F, Cl, Br, I, OR<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO2R<sup>12</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkynyl, C<sub>2</sub>-C<sub>8</sub> alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R<sup>7</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

 $R^8$  is selected from among hydrogen, F, Cl, Br, I,  $OR^{12}$ ,  $NR^{12}R^{13}$ ,  $SR^{12}$ ,  $SOR^{12}$ ,  $SO_2R^{12}$ ,  $C_1$ - $C_8$  alkyl,  $C_1$ - $C_8$  haloalkyl,  $C_1$ - $C_8$  heteroalkyl,  $C_2$ - $C_8$  alkynyl,  $C_2$ - $C_8$  alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R<sup>3</sup> and R<sup>5</sup> taken together form a bond; or R<sup>5</sup> and R<sup>7</sup> taken together form a bond; or

R<sup>4</sup> and R<sup>6</sup> taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a three- to eight-membered saturated or unsaturated

carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R<sup>9</sup> and R<sup>10</sup> each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, C<sub>m</sub>(R<sup>12</sup>) <sub>2m</sub>OR<sup>13</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>13</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R<sup>11</sup> is selected from among hydrogen, F, Br, Cl, I, CN, OR<sup>14</sup>, NR<sup>14</sup>R<sup>13</sup> and SR<sup>14</sup>;

R<sup>12</sup> and R<sup>13</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkenyl, C<sub>2</sub>-C<sub>8</sub> alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R<sup>14</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, aryl, heteroaryl, C(O)R<sup>15</sup>, CO<sub>2</sub>R<sup>15</sup> and C(O)NR<sup>15</sup>R<sup>16</sup>, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R<sup>15</sup> and R<sup>16</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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Note

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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DATED

: APRIL 11, 2008

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

W is O or S; X is N{R<sup>14</sup>}; Y is selected from among O, S, N{R<sup>12</sup>} and N{OR<sup>12</sup>}; Z is N{R<sup>12</sup>}; n is 0; and m is 0 or 1; or a pharmaceutically acceptable salt thereof.

- 42. A pharmaceutical composition according to claim 34, wherein R<sup>11</sup> is selected from among F, Cl, CN, OR<sup>14</sup>, NR<sup>14</sup>R<sup>13</sup> and SR<sup>14</sup>.
- 43. A pharmaceutical composition according to claim 42, wherein  $R^{11}$  is selected from among F, Cl,  $OR^{14}$ ,  $SR^{14}$  and  $NR^{14}R^{13}$ .

50. A pharmaceutical composition according to claim 49, wherein:

R<sup>5</sup> through R<sup>8</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

52. A pharmaceutical composition according to claim 51, wherein Y is O or S.

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Note

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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: APRIL 11, 2006

INVENTOR(S)

LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### 53. A compound of formula:

$$R^{1}$$
 $R^{1}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 
 $R^{10}$ 

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Note

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PATENT NO.

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INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

#### wherein:

R<sup>1</sup> is selected from among hydrogen, F, Cl, Br, I, NO<sub>2</sub>, OR<sup>12</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl and C<sub>1</sub>-C<sub>8</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>2</sup> is selected from among F, Cl, Br, CF<sub>3</sub>, CHF<sub>2</sub>, CH<sub>2</sub>F, CF<sub>2</sub>Cl, CF<sub>2</sub>OR<sup>12</sup>, CH<sub>2</sub>OR<sup>12</sup>, OR<sup>12</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the haloalkyl, and heteroalkyl groups are optionally substituted:

R<sup>3</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>4</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>5</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted:

R<sup>6</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

R<sup>7</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl and C<sub>1</sub>-C<sub>6</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R<sup>8</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

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NOR

### UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R<sup>3</sup> and R<sup>5</sup> taken together form a bond; or

R<sup>5</sup> and R<sup>7</sup> taken together form a bond; or

R<sup>4</sup> and R<sup>6</sup> taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R<sup>6</sup> and R<sup>8</sup> taken together form a three- to eight-membered saturated or unsaturated

carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R<sup>9</sup> and R<sup>10</sup> each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR<sup>12</sup>, NR<sup>12</sup>R<sup>13</sup>, C<sub>m</sub>(R<sup>12</sup>)<sub>2m</sub>OR<sup>13</sup>, SR<sup>12</sup>, SOR<sup>12</sup>, SO<sub>2</sub>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>13</sup>, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R<sup>11</sup> is selected from among F, Br, Cl, I, CN, OR<sup>14</sup>, NR<sup>14</sup>R<sup>13</sup> and SR<sup>14</sup>:

R<sup>12</sup> and R<sup>13</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, C<sub>2</sub>-C<sub>8</sub> alkenyl, C<sub>2</sub>-C<sub>8</sub> alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R<sup>14</sup> is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, aryl, heteroaryl, C(O)R<sup>15</sup>, CO<sub>2</sub>R<sup>15</sup> and C(O)NR<sup>15</sup>R<sup>16</sup>, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R<sup>15</sup> and R<sup>16</sup> each independently is selected from among hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> haloalkyl, C<sub>1</sub>-C<sub>8</sub> heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is  $N\{R^{14}\}$ ;

Y is selected from the group of O, S,  $N\{R^{12}\}$  and  $NO\{R^{12}\}$ ;

 $Z \text{ is } N\{R^{12}\};$ 

MAILING ADDRESS OF SENDER:

PATENT No. 7,026,484

Note

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,026,484 B2

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DATED

: APRIL 11, 2006

INVENTOR(S)

: LIN ZHI ET AL.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

60. A compound according to claim 34, wherein:

 $R^5$  and  $R^7$  each independently is selected from among hydrogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  haloalkyl and  $C_1$ - $C_6$  heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R<sup>5</sup> and R<sup>7</sup> taken together form a bond.

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